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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,651

07/13/2007

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Q97624

2296

23373 7590 05/21/2009
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EXAMINER

HUHN, RICHARD A

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

05/21/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,651	Applicant(s) SUZUKI ET AL.	
	Examiner RICHARD A. HUHN	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☒ Claim(s) 1 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Any rejections and/or objections made in the previous Office Action and not repeated below are hereby withdrawn.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. This action is made non-final in view of the new grounds of rejection set forth below which are not necessiated by Applicant's amendment filed on 10 February 2009.

Claim Objections

4. Claims 1 and 19 are objected to because of the following informalities:
 - a. Claim 1 recites the limitation "unless it has not an active proton" in the sixth line of text in the claim. This language is awkward, and it is suggested that it be replaced with "unless it does not have an active proton" or the like.
 - b. Claim 19 contains formula (IX) which has the group "Oli"; however, two lines below the formula, the group "Oil" is referred to.
5. Appropriate correction is required.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

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unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-8 and 10-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 11/908462. Although the conflicting claims are not identical, they are not patentably distinct from each other. US App '462 claims a conjugated diene polymer (see claim 1). US App '462 fails to specifically claim the initiator or metals which are presently claimed, or that the polymer is a "modified" polymer as is presently claimed. However, it is noted that the polymer of US App '462 is made by anionic polymerization (see, for example, "lithium-N-methyl piperazide" in paragraph 27 of the specification). Therefore, the polymers claimed by US App '462 have the groups Z1=an alkali metal, as is presently recited, as well as a nitrogen-containing ligand such as lithium N-methylpiperazide, which is according to the instant formula (I). Furthermore, US App '462 teaches that the polymers may be modified with silicon-containing groups

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as are presently recited (see paragraph 35). Therefore, it would have been obvious to a person of ordinary skill to have made the polymers which are claimed by US App '462 by using lithium N-methylpiperazide and silicon-containing modifying groups as taught by US App '462, thereby arriving at the presently claimed invention.

8. Case law holds that those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. In re Vogel, 422 F.2d 438, 164 USPQ 619,622 (CCPA 1970).

9. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 13, 15, 16, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. Claim 13, 15, 16, and 19 recite the limitation "wherein...R2...[is] the same meaning as mentioned above". However, it is noted that the group R2 is defined both in claim 1 and in claim 2, and therefore it is unclear which meaning is to be assigned to the group R2 in claims 13, 15, 16, and 19.

13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

14. Claims 1-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

15. Case law holds that applicant's specification must be "commensurately enabling [regarding the scope of the claims]." See *Ex Parte Kung*, 17 USPQ2d 1545, 1547 (Bd. Pat. Appl. Inter. 1989). Otherwise undue experimentation would be involved in determining how to practice and use applicant's invention. The test for undue experimentation as to whether or not all compounds within the scope of claims 1-12 and 21-26 can be used as claimed and whether said claims meet the test is stated in *Ex parte Forman*, 230 USPQ 546, 547 (Bd. Pat. Appl. Inter. 1986) and *In re Wands*, 8 USPQ2d 1400 (Fed. Cir. 1988). See also MPEP 2164.01(a). Upon applying this test to claims 1-12 and 21-26, it is believed that undue experimentation would be required because:

c. There is no direction or guidance presented for making a polymer comprising any type of diamine compound which has $R1=R2=Y1=H$, and in which $Z1$ =an alkali metal.

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d. There is an absence of working examples concerning making a polymer comprising any type of diamine compound which has $R_1=R_2=Y_1=H$, and in which Z_1 =an alkali metal.

16. Instant claims 1-12 and 26 read on polymers derived from diamine initiators, some of which diamines are known in the art not to be polymerization initiators, including those cited above in which $R_1=R_2=Y_1=H$. It is further noted that in the present specification, Applicant discloses that the use of lithium-piperazide, a compound which falls within the scope of instant claims 1-12 and 21-26, does not allow for polymerization (see page 13 line 8).

17. Instant claims 13-16 read on polymerization initiators which contain diamines with silyl groups. These compounds in which $R_1=R_2=H$ differ from those set forth above only by the substitution of a nitrogen with a silyl group, and such compounds may still contain the N-H bonds which would render the compound unable to initiate anionic polymerization.

18. Instant claims 17, 19, and 20 read on a method of polymerization using the silyl-diamine compounds previously discussed. Instant claim 18 reads on the polymer prepared by using an initiator of claim 14, which was previously discussed. Instant claims 21-25 read on compositions comprising polymers of claim 1, which was previously discussed.

19. Applicant therefore fails to demonstrate that all of the diamine compounds within the scope of the present claims may be used as polymerization initiators. In light of the

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above factors, it is seen that undue experimentation would be necessary to make and use the invention of claims 1-26.

Response to Amendment

20. The amendment of claims 1, 6-9, 11-14, and 21 to correct minor informalities is acknowledged. The amendment of the specification to correct minor informalities is acknowledged. Applicant's presentation of new claim 26 with support from claim 12 is acknowledged. Upon reconsideration, the indicated allowability of claims 2-5, 10, 15-20, and 22-25 is withdrawn in view of the enablement rejection set forth above in paragraphs 14-18.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD A. HUHNS whose telephone number is (571) 270-7345. The examiner can normally be reached on Monday to Friday, 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. A. H./
Examiner, Art Unit 1796

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796